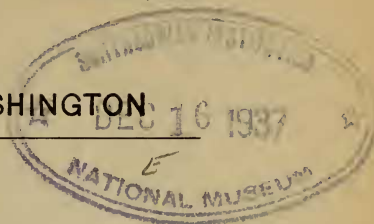


PROCEEDINGS
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A NEW SPECIES OF DRYOPTERIS, SUBGENUS
EUDRYOPTERIS, FROM GUATEMALA.¹

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There is described herewith a new fern of the genus *Dryopteris* from the high mountains of western Guatemala, the specimens belonging to a large collection made several years ago by Dr. Alexander F. Skutch and kindly presented by him to the U. S. National Museum. It is not sufficiently close to any of the American species of the subgenus *Eudryopteris* previously known to require detailed comparison.

***Dryopteris nubigena* Maxon & Morton, sp. nov.**

Sugb. *Eudryopteris*. Rhizoma adscendens lignosum paleaceum, paleis lanceolatis brunneis vel castaneis onustum; folia longe stipitata; lamina deltoidea tripinnata-pinnatifida vix paleacea, rhachibus stramineis vel flavescentibus nudis parce stipitato-glandulosis; pinnae suboppositae ca. 9-jugae patentes, infimae deltoideae petiolulatae basicopicae anadromae, ceterae catadromae ambitu sublanceolatae; pinnae secundariae alternae lanceolatae, infimae liberae, superiores decurrentes et ala angustissima conjunctae; pinnulae suboppositae ca. 9-jugae oblongae decurrentes profunde pinnatifidae, segmentis ultimis ca. 5-jugis latis apice acutiuscule dentatis; venae plerumque furcatae; lamina tenero-membranacea fere glabra parce stipitato-glandulosa; sori mediocres solitarii, sporangiis glabris; indusium orbiculari-reniforme parvum tenerum subpersistens glanduloso-ciliolatum.

Rhizome stout, ascending, woody, 10-15 cm. long, about 2 cm. thick, densely paleaceous, the scales narrowly ovate to lanceolate, 8-15 mm. long, 1-3 mm. broad, acuminate, castaneous, lustrous, minutely glandular-denticulate. Fronds several, close, erect-spreading, 50-85 cm. long, the stipes stoutish, sulcate, equaling or mostly slightly longer than the blades, castaneous in basal portion, here freely paleaceous, the scales ovate-lanceolate, acuminate, up to 17 mm. long and 5 mm. broad, mostly dark brown, minutely glandular-denticulate; blades deltoid, up to 42 cm. long and 44

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cm. broad, tripinnate-pinnatifid, the rachis stramineous, terete, naked, very sparsely capitate-glandular, the secondary rachises similar; main pinnae about 9 pairs, subopposite, at right angles to the rachis, the lowest inequilateral, basiscopically developed, elongate-deltoid, up to 22 cm. long and 13 cm. broad, anadromous, stalked (up to 1.5 cm.), the upper pinnae narrower, nearly equilateral, catadromous; secondary pinnae of the middle pinnae about 15 pairs, the basal ones free, broadly lanceolate, about 4.5 cm. long and 2 cm. broad, the upper ones simpler, decurrent, and joined by a very narrow wing; tertiary pinnules subopposite, about 9 main pairs, oblong, decurrent and joined by a narrow wing, the larger ones about 1 cm. long and 5 mm. broad, deeply pinnatifid, the segments (about 5 pairs) broad, with 2-4 acutish teeth; costae and costules bearing pale stalked capitate glands and a few appressed reddish firm 5- or 6-celled hairlike scales less than 0.3 mm. long and 25-30 μ thick; leaf tissue membranous, bearing scattered pale stalked capitate glands; sori solitary in the segments, supramedial, terminal or not; indusia roundish-reniform, small, delicate, pale, glandular and sparingly glandular-ciliolate, early-shriveling but subpersistent; sporangia glabrous; spores yellowish-brown, about $45\mu \times 25\mu$

Type in the U. S. National Herbarium, no. 1,587,763, collected at Buena Vista, in cloud forest above Tecpam, Department of Chimaltenango, Guatemala, at an altitude of about 3000 meters, December 25, 1933, by Alexander F. Skutch (no. 771). Other plants were collected in January, 1933 (Skutch 179), and there is at hand also a depauperate specimen from the same region collected in March, 1936, by Morris E. Leeds.

In the general architecture of its deltoid blades *Dryopteris nubigena* most resembles *D. Karwinskyana* (Mett.) Kuntze, of which specimens are at hand from Mexico, Guatemala, Nicaragua, and Costa Rica; but that, which is perhaps its nearest relative, differs widely in many essential characters, notably in its paleaceous blades, covered with peculiar hairlike glands, and its very large, firm, vaulted, and persistent indusia.